

FIBER OPTIC SMOKE DETECTOR

A passive sensor housing has an air gap formed therein between a collimating lens and a lens focused mirror reflecting optical light signals transmitted through the lens into the air gap within which smoke is received through screened openings in the housing. The optical light signals which are generated within an opto-electronics unit are returned thereto by reflection through the air gap into a fiber cable connected to the collimating lens of the sensor and to an optical coupler within the opto-electronic unit to which generated light signals are delivered from a light emitting diode and returned from the sensor for delivery to a receiver within which such signals are processed into an output signal reflecting smoke density within the air gap.